

# Julian Agudelo

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Bachelor of Science in Mechanical Engineering  
University of Florida  
Dean's List: Fall 2020, Spring 2021

December 2023

GPA: 3.79/4.00

## Work Experience

- **Utilities Engineering Intern** May 2023 – July 2023  
Kimley- Horn and Associates, Ocala, FL
  - Attended Client meetings, design presentations, site visits, and performed fire hydrant tests for current projects.
  - Drafted permit requests, permit renewals, Capacity Analysis Reports, and Operation and Maintenance Performance Reports for water treatment and water reclaim facilities.
  - Revised shop drawings, AutoCAD models, GIS models, and aided in Lift Stations pump sizing and selection using Sewer Gems.
- **Team Facilitator for Integrated Product and Process Design** Aug 2022 – May 2023  
University of Florida/Duke Energy, Gainesville, FL
  - Created a MATLAB app that would clean and export chemical usage data to PowerBI.
  - Collaborated with interdisciplinary members in the creation of app and PowerBI dashboard.
  - Communicated with client, Duke Energy, to ensure optimum quality of delivered product.
- **Peer Mentor for Problem Solving Using Computer Software** Jan 2022 – Present  
University of Florida, Gainesville, FL
  - Clarified course content and troubleshoot Microsoft Office programs with students in weekly virtual office hours both in English and Spanish.
  - Provided students with grades and feedback on Microsoft Office assignments and projects.
  - Communicated student's concerns to the professor.
- **Engineering Summer Intern** May 2022 – Jul 2022  
Accent Solutions, Dublin, Ireland
  - Developed an online feedback tool using Wix and Calconic for potential customers determine how much the company can help them save.
  - Researched best practice for UX/UI and sustainability to apply to tool and the company website.
  - Determined energy consumption and CO2 production of 50 daily actions.

## Leadership Experience

- **PorColombia UF – President, Secretary** Jan 2020 – May 2023
  - Directed a group of 30+ people in biweekly meetings.
  - Oversaw and consulted the events and general body meetings committees.
  - Expanded the Cabinet and Committee team by 60%.
  - Developed a website on Wix to communicate recruit and maintain members up to date on events.
  - Collaborated in the design and distribution of monthly electronic newsletter for 70+ subscribers.

## Projects

- **Mechanical Design Retractable Ramp** Mar 2022 – Apr 2022
  - Worked with a team to design and evaluate a retractable wheelchair ramp.
  - Applied Solidworks FEA simulation analysis on structure, fasteners, 3 stage gear reduction, worm gear analysis, shafting, and infinite life fatigue analysis.
  - Collaborated in writing a detailed report and designing the machine in Solidworks.
- **Mechanics of Materials Laboratory** Jan 2022 – Apr 2022
  - Independently executed 4 experiments applying different measuring techniques to determine material properties.
  - Used LabView, SADI DAQ, Wheatstone bridges, and LVDT sensors to collect data.
  - Collaborated with a group in final experiment determining pressure in pressure vessels by attaching using 3 strain gauges soldered to Wheatstone bridges.
- **Design and Manufacturing Lab** May 2020 – Aug 2020
  - Designed, tested, and manufactured a robot using Solidworks that could collect, transport, and deposit 5 balls.
  - Learned and applied common manufacturing equipment including lathes, milling, welding, and sheet metal.

## Skills & Certifications

- **Programing:** Basic Java, Proficient in MATLAB, Beginner in Arduino.
- **Tools:** SolidWorks 2019, Autodesk Inventor 2017, Beginner in Civil 3D, Proficient in Office 365, Beginner in ArcMap.
- **Language:** Native fluency in English, Native fluency in Spanish.